Cohoes Company Power Canal System: Level 2
Immediately E. of and principally
parallel to North Mohawk Street
Cohoes, Albany County,
New York

HAER No. NY-9

PHOTOGRAPHS
WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Office of Archeology and Historic Preservation
National Park Service
U.S. Department of the Interior
Washington, D.C. 20240

HISTORIC AMERICAN ENGINEERING RECORD

COHOES COMPANY POWER CANALS HAER NO. NY-9
SYSTEM: LEVEL 2

Location: Immediately east of, and principally parallel to, North Mohawk Street
Cohoes, Albany County, New York
Latitude: 42° 46' 00" N. Longitude: 73° 42' 30" W.

Date of Construction: 1834-1880

Designer: Canvass White, C.E., and others following.

Present Owner: Cohoes Industrial Terminal Corporation, with the majority of the shares held by the city of Cohoes.

Present Use: Part of the canal system is being utilized for hydroelectric power. Other parts are used for sewage and drainage, while some areas are completely clogged.

Significance: The canals of the Cohoes Company comprised a typical, major power canal system, providing the power source for the city's mills and factories by supplying water for the water wheels and later for the turbines that drove the machinery in the mills.

PART I. HISTORICAL INFORMATION

A. Physical History:

1. Original owner: The Cohoes Company was organized in 1826 to utilize the water power potential of the Cohoes Falls on the Mohawk River drawing all the water not already taken for use in the Erie and Champlain Canals.

2. Designer: Canvass White (1790-1834) a prominent civil engineer, canal-builder and the discoverer of hydraulic cement, envisioned Cohoes as a great manufacturing city. It was he who instigated the formation of the Cohoes Company. Backers of the concern included Stephen Van Rensselaer of Albany, Peter Remsen of New York and David Wilkinson (1771-1852), a cotton manufacturer and mechanical genius from Rhode Island. In addition to serving as first president of the concern, White devised the details of the intricate power canal system around which Cohoes was to grow. Unfortunately, ill-health dogged the engineer, and he died before his brainchild became a reality.

Construction of the Cohoes power canal system fell to Canvass' brother Hugh (1798-1870), who directed the building of the first company dam in 1831-32, and the first canals in 1834.

3. Original purpose and construction: A wooden dam across the Mohawk River above the falls backed up the river. The first power canals completed were "Basin A" at the lower end of the present Harmony Mills, and "Basin B" immediately west of the upper end of Remsen Street.

Next came the Upper Levels, with a fall of 18 feet to bring water to the basins below. These ran on the east side of the old (original) Erie Canal and parallel to it. In the vicinity of the present School Street the water was taken under the canal by means of two wooden trunks four to five feet in diameter. At the lower end (present Remsen Street) the water was let into the basins to the south. In addition, it again tunneled under the canal and back into the Mohawk River to the North. During the last process the water was used to power an early iron foundry (1834-67) after already having been used by saw mills, grist mills and a paper mill in the course of its fall.

By 1836, the Cohoes power canal system was described as
> "an independent canal nearly two miles long. . . unconnected with the state [canal] works. The head and fall . . . is 120 feet permitting the use of the water under six successive falls of from 18 to 23 feet . . . and may be carried on these levels to almost any part of the company's estate. The minimum supply of water is 1,000 cubic feet a second, competent to drive from 3 to 4 millions of cotton spindles."

4. Alterations and additions: An enlarged Erie Canal was planned in 1837 and finally completed in 1843. This involved a number of changes and exchanges between the navigable State canals and the Cohoes Company. Two sections of the old Erie Canal (one to the west of Mohawk Street between the present Harmony Mills, and another west of Remsen Street as far south as White Street) became levels of the Cohoes power canal system.

At first, the role of the Cohoes Company was both to provide almost unlimited power for manufacturing, and

to attract potential industries to the town in order to utilize it. Originally, the company engaged in some manufacturing itself, but it gradually became more of a benevolent overseer, leasing lands and providing power only. The passing years saw the phenomenal growth of such industries as the Harmony Mills, one of the nation's largest cotton manufacturers, and Daniel Simmons' Axe Works, whose products were sold world-wide.

Gradually, as both Cohoes and its industries grew, the power canal system was extended and improved. In 1865 a solid stone masonry dam was constructed across the Mohawk River, supplanting the older dam at the head of the canals. Stretching 1,443 feet across the river, it was designed by and built under the supervision of engineer William E. Worthen of New York.

By 1880, the Cohoes power canals were complete as far as they ever would be. Their arrangement was as follows:

Level 1 (Upper Level) Extending from the dam to the rear of the early Harmony Mills. A fall of 18 feet.

Level 2 West of Mohawk Street between the Harmony N°. 1-2 and N°. 3 Mills. (original Erie Canal) A fall of 25 feet.

Level 3 From East Remsen Street to just south of Ontario Street, A fall of 23 feet.

Level 4 A short section west of and adjacent to the upper end of Remsen Street. A fall of 20 feet.

Level 5 South of Ontario Street, running east to the Rensselaer & Saratoga (Delaware & Hudson) Railroad tracks. A fall of 20 feet.*

Level 6 South of Courtland Street (a spur of Level 4).*

Level 9 South of Grove Street to the Rensselaer & Saratoga (Delaware & Hudson) Railroad tracks.*

Three other levels (Level 7, east of the Rensselaer & Saratoga Railroad southward; Level 8, between Saratoga Street and the Champlain Canal; and Level 10, an extension of Remsen Street's Level 4) were planned and

*No longer in existence, 1969.

some work was done, but they were never finished. A 360-foot tunnel, completed in 1876, was excavated from the end of Level 1 to the bank of the Mohawk River. By means of this, ice and accumulated debris could be jettisoned without stopping the mills below.

The Cohoes Company's officers in later years were the heads of the mills that used the power. They charged nominal rates, the annual rental running to only about $20 per horse power. The exact quantity of power used by each manufacturer was accurately measured and charged for accordingly.

By developing the water power and thus offering inducements for the establishment of industrial enterprises, the Cohoes Company laid the foundations for all of the varied industries that at one time or another made the city of Cohoes their home. Only changes in industry and the use of electric power have brought gradual abandonment of the canals.

Today, four of the levels of the Cohoes Company Power Canal system still exist, including the two that are parts of the original Erie Canal. The uppermost level is still a hydraulic power canal. Others serve for drainage and sewage; the two lowest levels, however, are clogged with silt and debris and are close to abandonment. An intricate system of hand and machine-operated guard gates, inlets, and outlets control the remaining portions, much of the machinery being over a hundred years old.

Some of the nation's early hydraulic engineers had a hand in fashioning the Cohoes power canal system, and it is still a monument to their foresight, planning and execution.

B. Sources of Information:

1. Bibliography:

Bishop, John Leander. History of American Manufactures. Philadelphia: E. Young & Co., 1861.

Child, Hamilton. Gazetteer and Business Directory of Albany & Schenectady Counties, N. Y. for 1870-71. Syracuse: Printed at the Journal office, 1870.

Howell, George Rogers. Bi-centennial History of Albany: History of the County of Albany, N. Y. from 1609-1886. New York: W. W. Munsell & Co., 1886.

Masten, Arthur Haynesworth. History of Cohoes, New York from its Earliest Settlement to the Present Time. Albany: Joel Munsell, 1877.

Weise, Arthur James. City of Troy and its Vicinity. Troy: Edward Green, 1886.

2. Maps:

Map of Cohoes, Albany County, New York. John Brevan, 1860.

Map of Cohoes, New York. Jay Gould, C. 1856.

Map of Troy, Watervliet, Cohoes, Waterford & Green Island. Sampson, Murdock, Company, Inc., 1889-1935.

Ms. Map of Cohoes Company Canal & Erie Canal. 184?. New York State Library.

3. Other sources:

Conversations with Mr. William Magee, General Manager, Cohoes Industrial Terminal Corporation.

Records and maps on file at Albany County Clerk's Office, Albany, New York.

Prepared by Richard S. Allen
Historian
September 1969

PART II. ENGINEERING INFORMATION

A. General Statement:

1. Structural character: Typical canals formerly used to feed the turbines that powered the machinery of Cohoes' mills and factories. The system, planned and developed by the Cohoes Company to utilize the energy of the Cohoes Falls on the

Mohawk, was similar to the scheme already established at Lowell, Massachusetts; Paterson, New Jersey; and Nashua, New Hampshire.

2. Condition: The general condition is poor, with most sections drained of water and filled with refuse. The original diversion canal, extending south from the head gate house at the dam, is presently the headrace for the Niagara Mohawk hydroelectric station.

B. Physical Description:

The earth-baked canals are trapezoidal in section, four feet deep, varying in length and width according to the number and size of the mills they are designed to serve. The amount of water drawn by each mill determined the power rates charged. A section of the canal which utilized an abandoned (1840) portion of the original (1824) Erie Canal has been filled in.

C. Site:

1. Orientation: Generally north to south but directions vary as to mill served.

2. Setting: Industrial area and amid mill complex.

Prepared by Richard J. Pollak
Professor of Architecture
Ball State University
August 1969

PART III. PROJECT INFORMATION

These records were prepared as part of the Mohawk-Hudson Area Survey, a pilot study for the Historic American Engineering Record which was established in 1969 under the aegis of the Historic American Buildings Survey. The project was sponsored jointly by the National Park Service (Historic American Buildings Survey), the Smithsonian Institution (National Museum of History and Technology), the American Society of Civil Engineers (National Headquarters and Mohawk-Hudson Section), and the New York State Historic Trust. The field work and historical research were conducted under the general direction of Robert M. Vogel, Curator of Mechanical and Civil Engineering, Smithsonian Institution; James C. Massey, Chief, Historic American Buildings Survey; and Richard J. Pollak, Professor of Architecture, Ball State University, Project Supervisor; and with the cooperation of the Department of Architecture, Rensselaer Polytechnic Institute.

HISTORICAL ADDENDUM

THE COHOES COMPANY
A Business Organization with Many Utilities
(1826-1918)

The Cohoes Company takes its name from the Cohoes Falls on the Mohawk River, just above its junction with the Hudson. This was also the point at which the Erie and Champlain Canals joined before their descent to the Hudson level and termination at Troy and Albany. This juxtaposition of canal and company is more than a matter of accidental or even geographical coincidence. The Cohoes Company was, in fact, an early by-product of the Erie canal improvement, and the fortunes of both were linked closely together from the outset.

The very foundation of the Cohoes Company in 1826 grew directly from the Erie Canal. The previous year marked the completion and opening of the canal from Buffalo to Albany. Two men of great note were significant as builders of the Erie Canal. One was Canvass White, who along with Benjamin Wright, John B. Jervis and others was a pioneer figure in hydraulic engineering in America and whose work on the Erie Canal brought him to this terminal point at the junction of canal and river. The other was Stephen Van Rensselaer, principal landlord and patron of the area, whose vast estate embraced the lands on both sides of the Hudson River as well as the great water rights on the Mohawk. He was, moreover, a promoter and chairman of the Canal Commission. To both of these men the value of the water power at the Cohoes Falls on the Mohawk was quite apparent and led to the merger of their interests in this unusual corporation.

The Cohoes Company had, in fact, a predecessor as early as 1811, in the Cohoes Manufacturing Company, which was formed by a group of promoters from Lansingburgh, just across the Hudson River. It acquired a sixty-acre lot of land, part of the Heamstreet farm, together with a water right on the Mohawk. The capital stock was $100,000, a large sum for the time, divided into two thousand shares, and its object was to initiate textile manufacture and iron mongery. Its first and only project, however, was the manufacture of wood screws, which is described in Horatio G. Spafford's Gazetteer of New York State (first edition of 1813). Spafford refers to a William C. Penniman, a self-taught artist, who built the machinery for this little factory. It burned in 1815, however, and the whole venture languished for a decade. The completion of the two barge canals, with their numerous locks within what was to become the settlement of Cohoes, brought considerable activity to the area. The Cohoes Manufacturing Company was revived and a cotton mill was erected, while plans were made for further development of the water power and the eventual establishment of many factories there. There was even a complaint that the canals drew off too much water from the Mohawk.

The Cohoes Manufacturing Company, however, failed, despite and perhaps because of its ambitious plans. It was virtually replaced by the Cohoes Company, inspired largely by Canvass White, who interested Stephen Van Rensselaer, Peter Remsen of New York, and other potential capitalists in the project. On March 28, 1826 the Cohoes Company was incorporated, with Canvass White as president and the son of Stephen Van Rensselaer, Stephen Jr., as vice-president. The latter succeeded White as president a few years later. Capital was set at $250,000, a substantial amount at the time, and was doubled a decade later. Van Rensselaer turned over his water rights in the Mohawk to the company for one dollar and other considerations, and it acquired adjoining lands. The plan was to build a dam across the river above the Falls and from there divert water into a canal which would distribute it in measured amounts across the company lands for industrial uses. It was even contemplated to build factories, wharves, and houses and to lease them to various enterprises.

Actual development was delayed, partly because Canvass White was in demand as a hydraulic and canal engineer elsewhere. His brother, Hugh White, took over the direction of the project, and he settled in nearby Waterford, where his house now serves as the home of the Waterford Historical Society. By 1829 the Cohoes Manufacturing Company had been broken up, and its rights and land were acquired by the Cohoes Company at a receiver's sale. In 1831 the first wooden dam was built across the Mohawk near the present dam site. At first the company used the Erie Canal to distribute water, but it shortly built its own diversion canal, more than a mile long, which in an enlarged form still serves to supply the hydroelectric station now located below the falls. Other canals were built in later years to distribute water on several levels, each with a head of some twenty feet, suitable for the small water-wheels of the time. These still thread their way through the city of Cohoes, sluggish and choked with vegetation and refuse. They have served no purpose for more than half a century, and are indeed a menace to health and safety. They are to be filled in as part of an extensive urban renewal program which is to convert Cohoes from a rather drab, shadowy reminder of the past into an "All-American model city," as selected by the Federal government.

The industrial development of Cohoes began in 1830, thanks to the activity of the Cohoes Company. New settlers came, among them particularly David Wilkinson and his brother-in-law, Hezekiah Howe, both from Pawtucket, R.I. Wilkinson was a brother-in-law of Samuel Slater, who introduced power cotton spinning machinery from England. Wilkinson became, in fact, a prime mechanic and inventor in the manufacture of textile machinery in Rhode Island and New York. Hezekiah Howe, also a mechanic, was the first contractor for the Cohoes Company canals. The first dam was carried away by ice and high water in a fast-flowing stream in its first year; despite rebuilding, it remained vulnerable to frequent damage.

Under the paternalistic encouragement of the Cohoes Company, Cohoes acquired an industrial character, developing from what was only a canal town straggling across farmland. Among the early notable arrivals in Cohoes, who gave its industrial development a special character, were Egbert Egberts and his associates, two brothers, Timothy and Joshua Bailey. A storekeeper in nearby Albany, Egberts became interested in the possibility of power knitting by converting the old manual knitting frame into a power-driven machine. As practical mechanics, the Bailey brothers accomplished this successfully, and in 1832 they came with Egberts to Cohoes and set up several sets of knitting machines in an existing cotton mill supplied with Cohoes Company water power. Thus was born a new industry in the United States, and Cohoes became in due course a major knitting center with more than a score of mills using Cohoes Company water power.

A few years after Egberts and the Baileys came to Cohoes, Daniel Simmons established a factory there for the manufacture of axes and other edge tools. The Simmons axe became nationally famous, and other axe and tool factories were established there as well. Perhaps most important in this decade of the 1830s, which was one of industrial beginnings in Cohoes, was the arrival of Peter Harmony, a Spaniard from New York who with the support of others founded the Harmony Manufacturing Company in 1837.

Among the first stockholders were some persons already interested in the Cohoes Company, namely Peter Remsen, Hugh White, and Stephen Van Rensselaer, Jr., thus establishing personal links between the two principal companies in Cohoes which persisted to the end. Capitalization was set at first at $100,000, later greatly increased as the enterprise grew. In 1837 a brick factory building costing $60,000 was erected, equipped with wheel houses and flumes. It contained at first 3,000 spindles. As was customary in other new industrial villages, particularly those being developed in New England at the time, the Harmony Corporation also built several tenements for its workers. In subsequent years these were to grow into a substantial part of Cohoes, located in a section adjoining the expanding Harmony mills. While the corporation is no longer, and the mill buildings are used for many other purposes, these houses are still occupied and comprise an important part of the housing available for the city's working population.

Despite these industrial beginnings, progress in Cohoes was small and slow in the early years. In 1839 after another freshet washed away a part of the dam, it was rebuilt more substantially by the company at a cost of $60,000 of "Timber filled in with stone and concrete masonry," 1500 feet long by nine feet high. In the same period, the Erie Canal was relocated westward and enlarged; the Cohoes Company was allowed to take over the abandoned waterway and to incorporate it into its canal system. By 1848 there were some 4,000 people in Cohoes, which was incorporated as a village. Two decades later, in 1869, it became a city. There was now a weekly newspaper, The Cohoes Advertiser, and a considerable variety of industry was using Cohoes Company water, including cotton and knitting mills, axe factories and machine shops.

The Cohoes Company was now looked to for still another service to the village. In 1847 it was asked and it agreed to install water pipes and hydrants in the principal streets and to supply water from the upper level canal. At a later date the village bought the water pipes and a company reservoir, but it continued to draw water from the company canals.

It was not all harmony, however. Differences between company and village developed, which grew to a climax in the last years of the company, as will be elaborated later. In the early years, there was the complaint that "the village is already cut up with roads and canals." The canals, in particular, were a source of inconvenience and discomfort from the outset. There was an early controvery over whether the company or village was obligated to maintain the number of bridges and safety railings required. The company insisted that these were a public obligation. As a result, there was a tendency on both sides to neglect maintenance, and in 1850, a bridge fell into a canal, nearly taking a full omnibus with it. The village authorities sued in court but lost to the company. This is significant because it illustrates the special character of the Cohoes Company as being more than a private business; it was also something of a public utility with social responsibilities, a concept not yet fully developed a century ago.

In this connection, it is noteworthy that the Cohoes Company owned not only the water rights of the Mohawk acquired from Stephen Van Rensselaer in payment for his stock, but also much of the land on which Cohoes developed as a settlement. The company offered for joint use a water right with the appropriate amount of land on which a mill could be built. As early as 1835 the Cohoes Company printed and publicized a "Map and Proposals . . . for the Sale of their Water Power and Lots at Cohoes."

The unit water power or "Mill Privilege" was described in detail as comprising 100 square inches of water with a head of twenty feet. The volume of water flowing through an opening ten inches square, under the pressure due to a head or fall of 20 feet, with adequate water was guaranteed. Together with a reserve fund for repairs, the rental was set at two cents per square inch of water and every foot of fall, to be paid annually in perpetuity. Further conditions were set forth in the proposal as to the rights and obligations of each party. All buildings were to be of brick or stone and none was to be used for "any laboratory, powder mill, furnace, or forge nor any chemical or other works whatsoever upon lots bordering or bounded on the East side of Canal and Basin A" which may be "so noxious or dangerous from fire - as to impair, injure, or endanger the life, safety, or reasonable comfort of any person. . ., or which shall endanger the buildings, property, or works now or hereafter placed upon the grantor's land. . ."

By 1846 an actual indenture between the Cohoes Company and Samuel H. Baldwin, Machinist, repeated all the familiar restrictions but set the annual rental for 100 square inches of water with a fall at twenty feet at $104 (vs $40 originally), indicative of the steep rise in the value of the sites. The usual restrictions were repeated including a prohibition to establish a tavern on the land, "without license from the grantor, nor a public house of entertainment nor any livery stable, nor sell any spirituous liquors of any kind in any shop, store, or other building." This would appear to have been an unusual degree of social and business regulation in a free enterprise age, perhaps reflecting not only the business interest but also the social standards of a puritanical society.

All of this points to a basic question arising out of the role of the Cohoes Company in the evolution of the Cohoes community. It has existed wherever a private, profit-making organization has become such a controlling factor in the life of the community, whether by the ownership of its land or its principal resources. This situation was also present in the case of Lowell, and to a slightly lesser degree, Lawrence on the Merrimack River in Massachusetts, where Boston capital dominated the growth of these textile cities through the exploitation of the water power site by a similar canal company, even to the extent of having these settlements named after the principal promoters. In more usual form, the problem has arisen as well in company mining towns, where a single company owns everything, including housing, and business. The question is, ultimately, whether such an arrangement, however paternalistic, is conducive to the welfare of the community and its people. At the least, it introduces a private monopolistic influence which limits and dominates, if it does not hurt, the common interest of all the rest.

The division between private and public interest in the case of Cohoes was accentuated after 1850 when the Harmony Manufacturing Company was taken over by a New York firm, Garner and Company, and reorganized as Harmony Mills. The Garners brought in capable management in the persons of Alfred Wild, William E. Thorn, and Robert Johnston and son, David J. Johnston. In the period that followed, especially during the Civil War decade, the Harmony Mills experienced a dramatic expansion, until they comprised six large structures, containing 130,000 spindles and 2,700 looms, and employing 2,500 operatives. Here by the 1870s was one of the largest cotton factories in the United States, if not in the world. In addition, the Harmony company owned 900 tenements, most of them built since 1860. There was also a Harmony Hall and a Sunday school as well as a weekday school. Altogether there prevailed the "perfect discipline of a well-trained army corps. An air of excellence and neatness of taste pervades and distinguishes the entire works." For thousands of workers and their families the Harmony Mills were their "support, their friend, their constant benefactor, and their own sweet home." These well-meant words of a contemporary observer convey perhaps an unintended note of skepticism and irony.

The condition of Cohoes, however prosperous and growing during the latter nineteenth century, was affected by the fact that the same people, particularly the Garners, an absentee ownership family in New York City, dominated both the Cohoes Company and the Harmony Mills. There was an interlocking of interests and officers between them. A colossal bronze statue of Thomas Garner was installed in a niche in the main elevation of the ornate Number 3 or "Mastodon" Mill, erected in 1873.

The Cohoes Company too undertook some major renovation at this time, building a solid new stone dam across the Mohawk River in 1865-66 and a gatehouse which controlled the flow of water into a new and enlarged canal. The entire installation was considered the finest of its kind in America. The total available horsepower was estimated at 10,000 and about two-thirds of it was in use. The rental was now twenty dollars per horsepower, which was described as "the cheapest in the country." Cohoes had grown into a city of some 15,000 people, and in 1870 David J. Johnston, the superintendent of Harmony Mills, was elected as its first mayor. This was at once evidence of public spirit but also of an interlocking interest between city and business. Cohoes was a polyethnic community, its people largely recent immigrants, and half of them French Canadians from Quebec.

The 1870s were probably the heyday of Cohoes and the Cohoes Company, notwithstanding the severe depression of the time. Despite the influence of the mills, labor unrest and trouble were almost endemic. It was in this period that Arthur H. Masten wrote the principal history of the city, which he celebrated enthusiastically in conjunction with the celebration of the Centennial of the Declaration of Independence. He extolled the Cohoes Company as the basis of Cohoes' prosperity by its policy of "developing the water power and offering the inducements for the settlement here of capitalists. . . It has moreover, by the construction of creditable works and improvements, by liberal donations of lands for public purposes, and in many other ways contributed to its growth and prosperity." Its facilities, in the form of ten canals, threaded their way through the city. Water was made available in small usable units on six different levels, each with a fall of approximately twenty feet, and it was thereby used repeatedly and economically. A mill power comprising six cubic feet of water per second, rented for $200 annually, at twenty dollars per horsepower. The city's two principal industries were then recovering unequally from the effects of a long and severe depression. Its seventeen knitting mills had suffered the greatest suspension and fall of prices, but the large Harmony Mills were now back at virtually full strength. Its six mills had 258,054 spindles and 5,650 looms, employing more than 4,100 operatives.

A decade later, in the 1880s, a new power age was ushered in unobtrusively, which was ultimately to have profound effects on the Cohoes Company and the power technology of Cohoes industries that were linked so closely together. This was electricity, first appearing as a means of improved lighting, and subsequently as a highly efficient form of

power transmission. In 1887 the Cohoes Company contracted with the city of Cohoes to supply fifty arc lights in the streets. For this purpose it built and maintained the first electric light plant, presumably powered by water from its own canals. This was, however, only a small beginning. A quarter of a century later, in 1911, came the revolutionary transformation in the means of utilizing the Cohoes Falls, when the Cohoes Company proposed an extensive project of electrification in the form of a hydroelectric plant on its water power site. Dam, gatehouse, and diverting canal were already in existence. What was needed was an electric generating plant at the base of the Falls. Thus, at one stroke, as it were, the system of canals providing water power in small units on six levels for the direct mechanical driving of the mills was to be rendered obsolete. Instead, a total of thirty-thousand electrical horsepower was to be generated in three hydroelectric units, and the alternating current thus provided could be distributed not only in Cohoes but over a wider area. It could supply light and heat, where required, as well as power. Interestingly, the model for this type of development already had been provided in 1895, in the construction of the first Niagara hydroelectric plant on an even larger scale.

This change-over did not occur without considerable controversy. It required, of course, a large investment of capital, but also a re-negotiation of power contracts with the participating mills, which would also have to make substantial outlays of capital for wiring, controls and motors to apply the new power. Moreover, once begun, the venture would have to be carried out promptly and as a whole, since the electric power would be available for use at once. The general negotiations between the Cohoes Company and its lessees occurred during 1911 and produced some controversy and bitterness, which found expression through the press. Of 31 lessees some 15 refused to sign new agreements. The Cohoes Evening Dispatch reported that behind their reluctance was the fact that these mills would now have to pay for all their power. At present, they were drawing more water than they paid for, and the Cohoes Company was not enforcing its rights. This situation would be corrected and charges made for power actually used.

An article in the Albany Telegram, however, presented the opposite side. For many years the company had neglected maintenance, and mills had to shut down periodically for want of water. The present plan was a "Wall Street financial game" to mulct users of millions instead of thousands of dollars. At present, in fact, the same few people were also in control of the Cohoes Company, the Harmony Mills, the Cohoes Gas Company, and the Cohoes Electric Light Company. Here was "a little clique of men." The knitting mills were to be the next victims of the Wall Street plan. Moreover, the Garner interests were now in the hands of three daughters, who were married to foreign noblemen, and American funds were thus to go abroad to support them. The mills were to be asked to pay up to four times more for their power. By increasing the power output from an existing 5500 horsepower to an estimated 25,000, the company income would rise to over half a million dollars per year. In two years such income would repay the cost of the whole investment.

Despite these grievances, progress was not to be stopped. By 1915 the electrification project was executed by Sanderson and Porter of New York as engineers. General Electric Company supplied the generators and other equipment. Three generating units were installed, with a total capacity of 30,000 horsepower. Two more were added in later years, with 24,000 horsepower. The power generated was fed at high voltage into a system supplying Troy and Albany as well as Cohoes.

This modernization of Cohoes power really spelled the doom of the Cohoes Company, as well as of its canal system. In 1918 a newly formed Cohoes Power and Light Company acquired the Cohoes Company together with the associated gas and electric companies. The Cohoes Company had assets of over six million dollars, and the corporate surplus was valued at nearly four million dollars. This was a notable showing for an old company which had been rendered obsolete by time and technological progress. In 1927 the Cohoes Power and Light Company was in turn absorbed by the New York Power and Light Company which in 1950 finally became part of the Niagara Mohawk system, which stretched across upper New York state between the two great water power sites at each end: Niagara and Cohoes. Thus were united the oldest and the newest power companies in the state, the Cohoes Company dating from 1826.

The provision of hydroelectric power unfortunately did not halt the decline of Cohoes as an industrial city. The Harmony mills were eventually closed in the 1930s, and the vast structures were emptied of their machinery. The remaining shells have taken on the drab patina of neglect and are partly occupied by small new industries. The many knitting mills too suffered decline, and most of them were eventually closed down. The old canals, useless and clogged with an accumulation of vegetation and refuse, still wind their way through the city, hampering its traffic. Only a newly projected program of urban renewal gives promise of disposing of these relics of a past age, when they served a useful purpose. They are to be filled in and turned into parks. But they are still there and interfere with the fulfillment of a dream of Cohoes as a "Model All-American city," a title it has taken to itself, which is as yet more hope than reality.

Principal Sources of Information:

1. "Map and Proposals of the Cohoes Company for the Sale of their Water Power and Lots at Cohoes" (New York, 1835), New York State Library, Albany.

2. "Indenture of January 27, 1846 between the Cohoes Company and Samuel H. Baldwin," Manuscript Division, New York State Library.

3. File on Cohoes Company in the offices of the Niagara Mohawk Company at Albany containing many items of interest and value.

4. Deeds and Land Grants of Cohoes Company, County Clerk's Office, Albany County.

5. Consultation and City tour with Dr. Edward J. Vandercar, City Historian of Cohoes, who has also been compiling a newspaper diary of Cohoes happenings.

6. Masten, A. H., The History of Cohoes (Albany, 1877).

7. The City of Cohoes: Its Past and Present History. Cohoes Cataract, Book and job printing office, 1873.

8. Weise, A. J., City of Troy and Vicinity (Troy, 1886).

9. Cornell, B. R., "The Hydroelectric Development of the Cohoes Company," General Electric Review, 1915.

Prepared by Samuel Rezneck
Professor Emeritus of History
Rensselaer Polytechnic Institute
August 1969

ADDENDUM TO:
COHOES COMPANY POWER CANAL SYSTEM, LEVEL 2
Harmony Mills
North Mohawk Street
Cohoes
Albany County
New York

HAER NY-9
HAER NY,1-COHO,3A-

PHOTOGRAPHS

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240-0001